Delta Operations for Salmonids and Sturgeon (DOSS) Group

Conference call: 6/12/12 at 9:00 a.m.

Objective: Provide advice to the Water Operations Management Team (WOMT) and National Marine Fisheries Service (NMFS) on measures to reduce adverse effects from Delta operations of the Central Valley Project and the State Water Project on salmonids and green sturgeon. DOSS will coordinate the work of other technical teams. DOSS notes and advice can be found at: http://www.swr.noaa.gov/ocap/doss.htm

DWR: Mike Ford, Andy Chu, Angela Llaban, Kevin Reece, Edmund Yu

FWS: Roger Guinee, Leigh Bartoo

NMFS: Barbara Rocco, Barb Byrne, Garwin Yip, Bruce Oppenheim

Reclamation: Russ Yaworsky, Josh Israel

DFG: Robert Vincik, Bob Fujimura, Jason Roberts

EPA: Erin Foresman

SWRCB, USGS: not present

Agenda

- 1. Fish monitoring & water temperatures
- 2. Current operations
- 3. Subgroups (calendar-based OMR & Science Panel response)
- 4. Annual review report
- 5. Summer break

Action Item: Oppenheim (NMFS) will set a meeting date for the Delta Science Panel (DSP) subgroup to discuss how to address each of the independent review panel's recommendations to DOSS.

6/12/12: The DSP subgroup will be involved in writing a response to last year's review to present as part of this year's annual review. We have recommendations from the independent science group panel that we need to work through and we need to ensure that DOSS members are comfortable with the responses. So far, we have Oppenheim (NMFS), Llaban (DWR), Israel (Reclamation), Roberts (DFG), and Bartoo (FWS) confirmed. Guinee (FWS) suggested including Brandes (FWS) and will contact her to confirm. Anyone else who is interested should notify Oppenheim. It would help to be able to spread out the workload for writing the responses for last year's review and the annual reports for this year's review.

Fish Monitoring: The following table presents fish monitoring data. Unless otherwise noted, reported sizes are fork length. See:

http://www.water.ca.gov/swp/operationscontrol/calfed/calfedmonitoring.cfm.

Location	Chipps Is. Midwater Trawl	Sacramento Trawls	Mossdale Kodiak Trawl	Beach Seines	Knights Landing RST	Tisdale Weir RST
Sample Date	6/4, 6/8	6/5, 6/7	6/4-6/5	6/5-6/7	6/5, 7, 11	6/4, 6, 8, 11

Total Catch	51	5	44	246	1	4
	39 (+1 adult @650	5	30	2	1	4
FR	mm)					
WR						
SR						
LFR						
Ad-Clipped Chinook	3					
DS	2					
Splittail	4		14	244		
Longfin	2					
SH (ad-clip)						
SH (wild)						
W. Temp. (avg. °F)	66.7	67.8	70.0	68.9	69.0	65.0
Flows (avg. cfs)					6,805.5	8,053
Turbidity (avg. NTU)	50.9	14.0		29.4	14.8	7.6
WR/LFR Avg. CPUE						
FR/SR Avg. CPUE					0.0019	0.018

Key: FR = Fall run; LFR = Late-fall run; SR = Spring run; WR = Winter run; SH = Steelhead; DS = Delta smelt; LFS = Longfin smelt; CPUE = catch per unit of effort

<u>Fish Monitoring</u>: Catches at Knights Landing and Tisdale rotary screw traps continue to decrease. There were only two fish caught in the last week in the beach seines. Tisdale will continue to sample through summer; Knights Landing trawls are being checked only about every 3–4 days now. Water temperatures have dropped at Knights Landing to the high 60s (72°F on 1 day last week). Water temperature at Mossdale today is 72°F. Lower water temperatures will keep juvenile salmonids there a bit longer but they begin to move out when the temperature increases.

Fish Salvage Data (6/5–6/11): Reports are also posted at ftp://ftp.delta.dfg.ca.gov/salvage: located the table under folder "DOSS salvage tables" (also try http://www.dfg.ca.gov/delta/apps/salvage/Default.aspx) and click on "salvage FTP site."

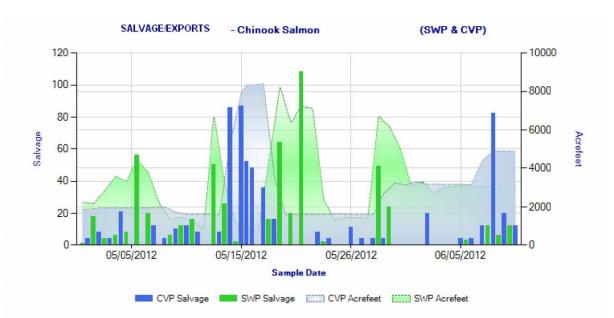


Figure 1. Daily salvage of Chinook salmon (all races) and water exports from the state and federal fish salvage facilities during May 1 through June 10, 2012. Graph obtained from the DFG salvage monitoring web-page:

http://www.dfg.ca.gov/delta/apps/salvage/SalvageExportCalendar.aspx.

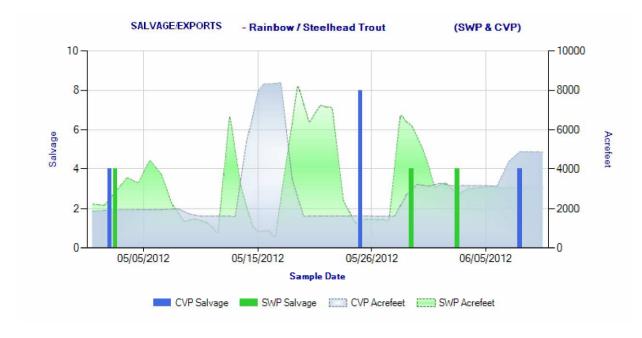


Figure 2. Daily salvage of steelhead and water exports from the state and federal fish salvage facilities during May 1 through June 10, 2012. Graph obtained from the DFG salvage monitoring web-page: http://www.dfg.ca.gov/delta/apps/salvage/SalvageExportCalendar.aspx

DOSS Weekly Salvage Update

Reporting Period: June 4-10, 2012

Prepared by Bob Fujimura on June 11, 2012 Preliminary Results -Subject to Revision

Criteria	4-Jun	5 - Jun	6-Jun	7-Jun	8-Jun	9-Jun	10-Jun	Trend
Loss Densities								
Wild winter-run CS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Wild steelhead	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1
Loss								
Wild spring-run CS	0.0	0.0	0.0	0.0	2.7	0.0	0.0	/
SWP daily export	3,008	3,078	3,131	3,041	3,078	3,078	3,078	1
CVP daily export	3,170	3,168	3,155	4,388	4,900	4,888	4,875	1

Loss Density = fish lost/TAF; water export = AF; Trend = compared to previous week; wild = adipose fin present

Chinook Salmon Weekly/Season Salvage and Loss

Combined salvage and loss for both CVP and SWP fish facilities

_		I	Neekly To	tal	Seaso	n Total	7
Category		Salvage	Loss	Trend	Salvage	Loss	
Wild							_
	Winter Run	0	0	_	841	2,079	exceeds "warning level"
	Spring Run	4	3		1,063	2,395	
	Late Fall Run	0	0		20	14	
	Fall Run	163	244		872	2,205	
	Total	167	247		2,796	6,693	
Hatchery							
-	Winter Run	0	0		460	1,210	
	Spring Run	0	0	→	142	289	
	Late Fall Run	0	0		25	20	
	Fall Run	0	0	→	60	117	
	Total	0	0		687	1,636	

Race determined by size at date of capture; hatchery = adipose fin missing;

Steelhead Weekly/Season Salvage and Loss

Combined salvage and loss for both CVP and SWP fish facilities

	l l	Veekly Tot	Season Total		
Category	Salvage	Loss	Trend	Salvage	Loss
Wild	0	0	_	332	1,113
Hatchery	4	3		597	1,121
Total	4	3		929	2,234

State Water Project loss = salvage x 4.33; Central Valley Project loss = salvage x 0.68

Coded Wire Tagged (CWT) Salvage and Loss as of 6/11/12 (see table below):

Hatchery Late-Fall Run, Winter-Run, and Spring-Run Chinook Loss at the Delta Fish Facilities, 2011/2012

Release Date	CWT Race	Hatchery	Release Site	Release Type	Confirmed Loss	Number Released	Total Entering Delta	% Loss¹	First Concern Level	Second Concern Level	Date of First Loss	Date of Last Loss
12/16/11	LF	Coleman NFH	Battle Creek	Production	134.66	394,700	n/a	0.034	n/a	n/a	1/11/12	3/31/12
12/23/11	LF	Coleman NFH	Battle Creek	Spring Surrogate	2.92	62,400	n/a	0.005	0.5%	1.0%	1/18/12	1/31/12

1/3/12	LF	Coleman NFH	Battle Creek	Production	653.06	448,600	n/a	0.146	n/a	n/a	1/19/12	5/7/12
1/13/12	LF	Coleman NFH	Battle Creek	Spring Surrogate	52.17	80,800	n/a	0.065	0.5%	1.0%	1/31/12	2/18/12
		Coleman	Battle	Spring		,					1/30/12	3/29/12
1/20/12	LF	NFH Livingston	Creek	Surrogate ²	101.04	20,000	n/a	0.505	n/a	n/a		
2/9/12	W	Stone NFH Feather	Redding	Production	16.96	185,281	96,525	0.018	0.5%	1.0%	3/31/12	3/31/12
4/3/12- 4/25/12	S	River Hatchery	Feather River	Production	0.00	1,110,709	n/a	0.000	n/a	n/a	-	-

For Chinook lost 10/1/2011 through 6/10/2012

SWP coded-wire tags read 10/1/2011 through 6/10/2012

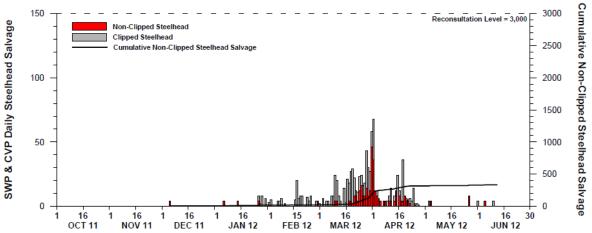
CVP coded-wire tags read 10/1/2011 through 6/10/2012

DWR-DES Revised 6/11/2012

Preliminary, subject to revision

Below are the salvage and loss graphs for Chinook and steelhead from Llaban (DWR) as of 6/11/12. For additional salvage and loss graphs, please visit the DWR website at: http://www.water.ca.gov/swp/operationscontrol/calfed/calfedmonitoring.cfm.

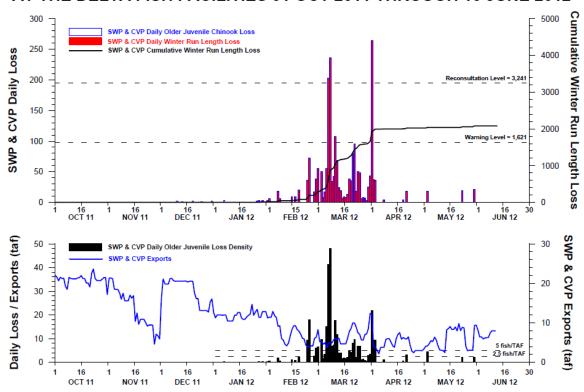
STEELHEAD SALVAGE AT THE DELTA FISH FACILITIES 01 OCT 2011 THROUGH 10 JUNE 2012



¹LF % Loss = (Confirmed Loss/Number Released)*100; W % Loss = (Confirmed Loss/Total Entering Delta)*100

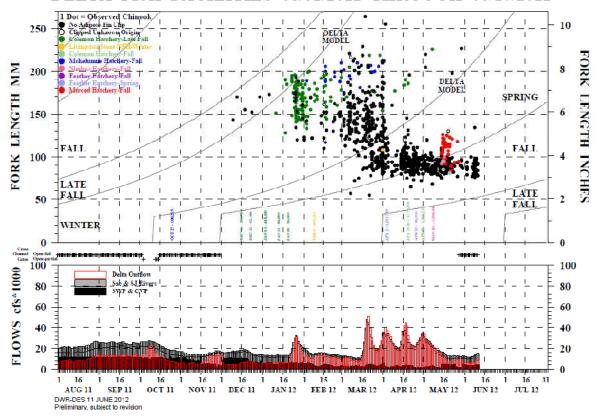
²Because of the equipment malfunction that stranded a large proportion of the release in the gravel, this 3rd surrogate release is tracked for monitoring and information only and not for compliance with Action IV.2.3.

NON-CLIPPED WINTER RUN & OLDER JUVENILE CHINOOK LOSS AT THE DELTA FISH FACILITIES 01 OCT 2011 THROUGH 10 JUNE 2012



DWR-DES 11 JUNE 2012
Preliminary, subject to revision
* Older juveniles defined as all Chinook above the minimum winter run length line (Delta model)

OBSERVED CHINOOK SALVAGE AT THE SWP & CVP DELTA FISH FACILITIES 08/01/2011 THROUGH 06/10/2012



Operations (6/12/12)

Operations (6/12/12)	****		CTTD		
S	WP	CVP			
	Ex	ports (cfs)			
Clifton Court Forebay	1,600	Jones Pumping Plant	2,400		
-	Reservoi	ir Releases (cfs)	·		
Feather - Oroville	4,000	Nimbus	3,000		
		Sacramento - Keswick	10,500 (increasing to		
			11,000 cfs tomorrow and		
			11,500 cfs on Thursday)		
		Stanislaus - Goodwin	700 (increasing to 900 cfs		
			tomorrow)		
	Reservoir Storage	(in TAF, % of capacity)			
San Luis (SWP)	717	San Luis (CVP)	447 (46)		
Oroville	3,458	Shasta	4,196		
New Melones		Folsom	917		
		- Operations	_		
	Closed (waiting	Sacramento River at	12,428		
DCC	for repair parts.	Freeport (cfs)			
DCC	If parts come				
	today, gates				

	might be open		
	for the weekend)		
Outflow Index (cfs)	7,300	San Joaquin River (cfs)	1,287
Outriow findex (CIS)	7,300	at Vernalis	
Total Delta Inflow (cfs)	15,112	OMR (daily) (cfs)	
Water Temperature (°F)	71.6 (Clifton	OMR 5 day (cfs)	-3,595
water remperature (17)	Court)		
X2 (km)	79 (downstream	OMR 14 day (cfs)	-4,027
A2 (KIII)	of Collinsville)		
E/I (%)	27.9		

Project operations were declared in "balanced" conditions (vs "excess" conditions) on 6/7/12. Shasta and Oroville are increasing releases to meet Delta outflow. Instead of OMR, X2 is controlling operations right now. The Collinsville X2 standard needs to be met for the entire month. The projects are meeting water quality requirements; however, X2 is beginning to move upstream.

Calendar-Based OMR for 2013: DOSS received advice from NMFS management to create a planning committee for 2013; this specific effort was part of the joint stipulation. The purpose of the committee is to continue discussions to develop a monitoring-based trigger that could be implemented in 2013 in lieu of the January 1 onset of Action IV.2.3. Since the stipulation called for continued discussion, parties to the stipulation and associated BiOp litigation have been invited to participate in this group. In light of this, the group, including stakeholders, will be an independent working group and not a DOSS subgroup.

The committee will discuss a monitoring-based trigger that could be used in lieu of beginning Action IV.2.3 on 1/1/13; it is not being asked to provide an alternative to the -5,000 cfs OMR flows for that period. There was some discussion about whether this would be a "technical" team or "policy" group and what members' perspectives would be. DOSS members agreed that this is a technical group that comprises members other than those on the DOSS and DCT teams. This new group would draft a proposed alternative and present that alternative to the policy people. The new group would have technical analysis and buy-in so as to inform the policy people.

It was suggested that the group meet initially for a few days and then again a few weeks later for another day or, at the very least, meet for a minimum of 3 hours with a concrete objective. It was agreed that a kickoff meeting would be appropriate so that people would understand expectations in advance and could prepare data to send out to members to avoid lengthy data presentations at subsequent meetings.

In addition to those mentioned during last week's DOSS call, Paul Hutton (Metropolitan Water District) and Jason Roberts (DFG) has volunteered to participate. Brad Cavallo (Cramer Fish Science) might want to be involved and Ford (DWR) will check with him. Ford also has notified everyone on the Delta Conditions Team (DCT) but only Hutton has responded so far. Guinee (FWS) agreed to send a notice to Leigh Bartoo and Pat Brandes, both of FWS.

Action Item: A kickoff conference-call meeting was scheduled for Monday (6/18/12) at 11:00 a.m. to confirm group members, group name, and when the group will subsequently meet.

Smelt Working Group (SWG): No change in operations was recommended from SWG. Conditions over the next week should be adequately protective of delta and longfin smelt.

DOSS advice to WOMT and NMFS: Continue to implement RPA Action IV.2.3 (OMR no more negative than -5,000 cfs, and with the fish density triggers) until June 15 (Friday).

Note: Currently, OMR flows are more positive than -5,000 cfs and operations are being controlled by X2, not the OMR requirements under Action IV.2.3.

Summer break: DOSS members agreed to break from DOSS meetings for summer and reconvene in October when the fish-salvage season begins, usually October 1. The annual review and calendar-based OMR groups will meet in the interim.

Fujimura (DFG) mentioned that from July through September, salvage for listed species (such as winter-run Chinook salmon or steelhead) is nearly zero, although there is a chance of a few juvenile green sturgeon showing up. Staff who has been working hard to get the salvage reports out in a timely manner will take their annual leaves in August and September. If any aforementioned listed species was to show up during that time, it would most likely not be a critical event. DOSS will continue to get daily salvage reports through June 15 and weekly reports through July.

Any comments or concerns about this shift in reporting should be sent to Fujimura. He will send DOSS an email notification if any green or white sturgeon are salvaged.

Next Meeting: The next DOSS conference call will be in October; the date will be provided by email several weeks in advance.